



Institut für Angewandte Materialien Elektrochemische Technologien Adenauerring 20 b 76131 Karlsruhe



# Job advertisement for student assistants

# Student assistant in the field of power-to-chemicals

## Research area

- Batteries
- Fuel cells and electrolysis
- Electrocatalysis

#### Alignment

- Experimental
- Electrical / Electrochemical
- Characterization
- Material analysis
- Development of
- measurement technology
- Modelling
- Simulation
- Literature Research

#### Course of study

- Electrical engineering and IT
- Mechanical Engineering
- Chemical Engineering
- Chemistry
- Physics
- Techno mathematics
- Industrial Engineering

### Language

- 🛛 English
- German (not mandatory)

#### Starting date

Immediate

#### Monthly working hours

25 – 40 h per month

#### Contact person

Mr. Michael Küttinger

Adenauerring 20b, Geb. 50.40, Raum 329 76131 Karlsruhe / Germany

Tel: +49 721 608-47582

E-Mail: michael.kuettinger@kit.edu

http://www.iam.kit.edu/et/

# Motivation

The research project EAGLE is dedicated to the design of an electrolyser and its operating conditions for the electrification of a synthesis step in the production of a fine chemical. This involves transferring an oxidation or reduction reaction from chemical synthesis to electrochemical synthesis. The electrolysers employed for this purpose must be optimised in terms of design and operating conditions. We are currently looking for a passionate student assistant to support our interdisciplinary team to investigate and implement this pioneering technology in laboratory work.



#### Fields of activity

As a student assistant in the field of power-to-chemicals, you will work at the IAM-ET in a dynamic research environment and contribute significantly to the research and development of new technologies by working in the laboratory. The respective field of work can be organised according to personal skills and interests. Your tasks may include:

- Assisting in laboratory experiments (preparation and realisation of electrochemical experiments such as cell experiments, half-cell experiments, etc.)
- Support in data acquisition and analysis in the laboratory.
- Development of measurement sequences (programming skills are of advantage)
- Development of methods and realisation of analytics (HPLC, UV-Vis, Raman)
- Support in organisational tasks within the project

# Which competences do you contribute?

- Basic understanding of process engineering (reaction engineering etc.) and electrochemistry (e.g. energy storage, fuel cell technology etc.)
- Programming skills are of advantage
- First experience in laboratory work and a keen interest in laboratory work
- Open-minded character with the ability to work and communicate in a team. Ability to work independently and motivation to familiarise yourself with a new subject area.

# What we offer for you?

We offer a dynamic working environment, flexible working hours and the opportunity to work in an interdisciplinary team on an innovative topic. We offer excellent professional supervision and support as well as a social environment for your work.

#### How to apply?

For further information, please contact Mr Michael Küttinger. Please send your application with CV, certificate of enrolment and transcript of records to <u>michael.kuettinger@kit.edu</u>.